



# Prostate cancer Factsheet

## Where is the prostate?

- The cancer occurs in the prostate gland, which lies at the base of the bladder, surrounding the first part of the urethra. The urethra is the pipe that carries urine from the bladder to the penis. (Women do not have prostate glands.)

## What is the prostate?

- The prostate is a male sex gland. It is about the size of a walnut and produces a thick fluid that forms part of the semen.

## How common is it?

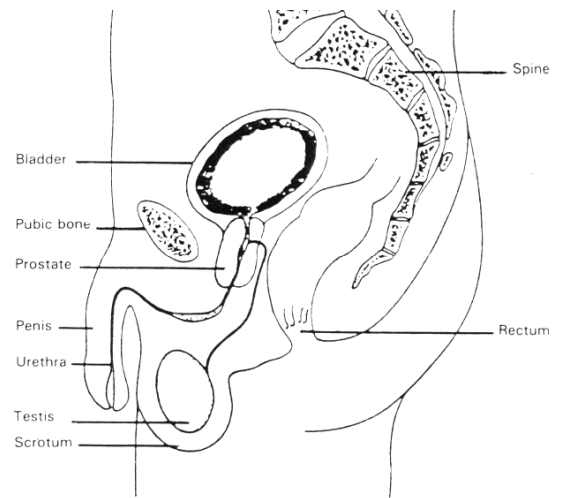
- Prostate cancer is the most common cancer in men in the United Kingdom.

In 2006 35,515 new cases of prostate cancer were registered in the UK. That number is increasing. This is largely due to an increase in numbers of cases diagnosed, through the greater use of PSA (prostate specific antigen) tests, and an ageing population.

- Prostate cancer claimed 10,239 lives in 2007 in the UK
- By the age of 80 many men have cancerous changes in the prostate – often the cancer grows very slowly; does not cause any symptoms and is not a threat to life. Lots of men die from something completely different never knowing they had prostate cancer.

## Who is at risk?

- Prostate cancer is unusual in the under-50s. The rates increase sharply with age. Over 60% of cases are diagnosed in man aged over 70 years.
- It is generally a disease of the developed Western world, African Caribbean men are three times more likely to be diagnosed with prostate cancer than white men. Researchers are looking at what may be the cause of this increased risk, but diet and genes probably play an important part.
- Prostate cancer can run in families. The risk of developing prostate cancer increases if there is a first-degree relative (father or brother) who was diagnosed with prostate cancer at a young age. Having an elderly relative with prostate cancer is not uncommon and does not increase the risk. In a small number of cases, prostate cancer runs in families because of a faulty BRCA2 gene.
- Eating a healthy diet can lower your risk of many cancers. But it's still too early to say whether diet can affect prostate cancer risk. We all eat such a variety of different things that any association between diet and illness is very difficult to prove. A huge Europe wide research study (called EPIC) is looking into diet and several different types of cancer, including prostate cancer. Half a million people are taking part and recording what they eat and drink over a 10 year period. Early results from the EPIC study haven't shown any link between the amount of fruit and vegetables that men eat and their risk of prostate cancer.



## What are the symptoms?

Symptoms for cancerous and non-cancerous growths are the same. They may include:

- ♂ passing urine more frequently than usual (especially noticeable at night)
- ♂ having to rush to the toilet to pass urine
- ♂ starting and stopping while urinating
- ♂ dribbling of urine
- ♂ a feeling of not having emptied the bladder fully
- ♂ difficulty or pain in passing urine

### *Less common symptoms*

- ♂ blood in the urine or semen
- ♂ impotence
- ♂ pain in the lower back and hips.

Anyone who has difficulty passing urine, or who notices a change in the way they pass urine, should go to their doctor for an examination.

## How is prostate cancer diagnosed?

- The only way to feel the prostate gland is by a digital rectal examination. The doctor wears a glove and uses plenty of jelly. The examination should be quite painless, if undignified. This rectal examination has for years been the gold standard for detecting prostate cancer as well as the non-cancerous disorder benign prostatic hyperplasia.
- Family doctors can also do a blood test to measure the PSA (prostate specific antigen) levels. A positive result is not necessarily an indicator of a cancer. (For more information on PSA see next page)
- Transrectal ultrasound is reported to be more sensitive than a rectal examination but not enough to be the only detection tool.
- To confirm the diagnosis of prostate cancer a small piece of tissue is removed for examination (a biopsy). This will be performed in hospital under anaesthetic. Body scans may also be needed to see if the cancer has spread.

## PSA test (Prostate Specific Antigen)

Prostate-specific antigen, or PSA is produced by the prostate and can be measured in the blood. Men over 50 have a right to ask their GP's for a PSA test provided that they have received full information on its risks and benefits. There is no one PSA reading that is considered 'normal'. The reading will vary from man to man and the normal level increases with age.

- ♂ 3 ng/ml or less is considered to be in the normal range for men under 60 years old
- ♂ 4 ng/ml or less is considered to be in the normal range for a man aged 60-69
- ♂ 5 ng/ml or less is considered to be in the normal range if you are over 70

PSA alone is not recommended for screening in the UK because :

- Men with prostate cancer may not have a raised PSA
- 2 out of 3 men with a raised PSA do not have prostate cancer
- There is uncertainty about the best way to treat early prostate cancer

The PSA test is not a test specifically for cancer, but can show that there is a problem with the prostate. It should be used together with other tests for diagnosing prostate cancer. A positive biopsy is needed to confirm cancer.

Generally speaking, the higher the PSA level, the more likely it is that there is a cancer in the prostate. The higher the PSA level in someone with prostate cancer, the more likely it is that the cancer has spread. But there are other causes of raised PSA, such as infection, a non cancerous enlarged prostate and even exercise and sex.

Unfortunately, the test cannot tell the difference between prostate cancers that grow quickly and are life threatening, and those that grow slowly and do not require treatment. This can lead to men receiving unnecessary treatment for a prostate cancer that may not cause clinical problems. Treatment is not without risk, and can occasionally lead to complications.

### **How is prostate cancer treated and what are the side effects?**

Treatment will depend on the stage of the cancer and the age and general health of the patient.

- Surprisingly, prostate cancer in its early stages may not need any treatment. Sometimes it grows so slowly the cancer never spreads. Doctors may suggest active monitoring ('watch and wait') which means monitoring the situation closely, and delaying treatment until the cancer shows signs of progressing further.
- Simple surgery allows the flow of urine from the bladder to the outside to be increased. Surgery to remove the whole cancer and prostate gland (prostatectomy) is much more difficult and can affect the ability to have an erection. Leakage (incontinence) of urine can follow all surgery but may also be due to the cancer affecting the normal control mechanism.
- Radiation treatment is an alternative to radical surgery. This avoids some side effects, but has others of its own.
- Conformal radiotherapy, leads to a major reduction in side effects when compared with conventional radiotherapy. Because the radiation beam is shaped to fit the irregular outline of the tumour, the effect on surrounding healthy tissue is limited and it is possible to give higher doses.

**Brachytherapy** - low dose radioactive "seeds" each about the size of a grain of rice are implanted within the prostate at the precise site of the cancer. The seeds work on the cancer over the coming weeks and months. Due to the short amount of time required in hospital and that brachytherapy works directly within the cancer - it is considered to be less traumatic and have less side effects than other treatments available.

**Hormonal therapy** is often used in all phases of prostate cancer treatment to help block production or action of the male hormones that have been shown to fuel prostate cancer. This treatment can be of great help in relieving symptoms if the cancer has spread, particularly to the bones. Potency (the ability to have an erection and ejaculate) may be affected by these hormones. The ability to have children may be affected by these treatments.

Decisions about the form of treatment that an individual has should be made in consultation with the doctor.

### **Survival**

Survival rates for men with prostate cancer have improved significantly since the 1970's when 3 out of 10 patients survived for five years now 7 in 10 newly diagnosed prostate cancer patients survive beyond five years.

For further information on any aspect of cancer prevention and screening:

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Website [www.cobalthhealth.co.uk](http://www.cobalthhealth.co.uk)

### References

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